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Product Information

Anti-p8/TTD-A (C-terminal)
produced in rabbit, affinity isolated antibody

Product Number: **T9702**

Product Description

Anti-p8/TTD-A (C-terminal) is produced in rabbit using as immunogen a synthetic peptide corresponding to a sequence at the N-terminal of human p8/TTD-A (GeneID: 404672) conjugated to KLH. The corresponding sequence is identical in rat and mouse. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-p8/TTD-A (C-terminal) specifically recognizes human, rat, and mouse p8/TTD-A. It may be used in several immunochemical techniques including immunoblotting (appears as ~35 kDa of tagged fusion protein) and immunofluorescence. Staining of the p8/TTD-A band in immunoblotting is specifically inhibited with the immunizing peptide.

The multi-protein transcription factor TFIIH is essential for both basal transcription and DNA repair.[1, 2] The TFIIH complex consists of ten subunits ERCC2, ERCC3, GTF2H1, GTF2H2, GTF2H3, GTF2H4, GTF2H5, MNAT1, CDK7, CCNH, and GTF2H5 (hereafter called p8/TTD-A, also known as TF2H5 and General transcription factor IIH polypeptide 5). It has been reported that defects in the tenth subunit of TGFIIH, p8/TTD-A, is responsible for the third group of the sun-sensitive form of trichothiodystrophy (TTD), a rare hereditary disorder.[3, 4] It was demonstrated that the primary critical function of p8/TTD-A is in DNA repair where it triggers DNA opening by stimulating XPB ATPase activity.[5] It is present both bound to TFIIH and as a free fraction that shuffles between the cytoplasm and nucleus. Induction of NER-type DNA lesions shifts the balance towards p8/TTD-A's more stable association with TFIIH.[6] It was also shown to be required for the stability of the TFIIH complex since cells from patients with p8/TTD-A have reduced levels of TFIIH, while overexpressing p8/TTD-A restored the cellular level TFIIH complex.[6, 7]

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide.

Antibody concentration: ~1.0 mg/mL

Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2–8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilutions should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 1-2 μg/mL is recommended using lysates of HEK-293T cells overexpressing human p8/TTD-A.

Immunofluorescence: a working concentration of 5-10 μg/mL is recommended using paraformaldehyde-fixed HEK-293T cells overexpressing human p8/TTD-A.

Note: In order to obtain best results in various techniques and preparations, it is recommended to determine optimal working dilutions by titration.

References

1. Egly, J.M., *FEBS Lett.,* **498**, 124-128. (2001).
2. Iben, S. et al., *Cell,* **109**, 297-306 (2002).
3. Giglia-Mari, G. et al., *Nature Genet*., **36**, 714-719 (2004)
4. Ranish, J.A. et al., *Nature Genet*., **36**, 707-713 (2004).
5. Coin, F. et al., *Mol. Cell*, **21**, 215-226 (2006).
6. Giglia-Mari, G. et al., *PLoS Biol.,* **4**, e156 (2006).
7. Vermeulen, W. et al., *Nature Genet*., **26**, 307-313 (2000).

VS,SG,KAA,PHC,MAM 03/19-1